

AMENDMENTS TO THE SPECIFICATIONS

On the page 6, please amend paragraph [0012] as follows:

[0012] Particularly, with the optical transmission system according to the present invention, when the bit rate is  $B$  (Gb/s) at the specific wavelength in the second wavelength band where the total chromatic dispersion in the optical fiber transmission line and the dispersion compensator becomes the highest, the chromatic dispersion value at this specific wavelength is ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less. Also, in this entire system the loss of each signal channel in the second wavelength band is smaller than the highest loss among of the losses in the signal channels in the first wavelength band. Or the lowest received power among the received powers for the signal channels in the second wavelength band is higher than the lowest optical power among the optical powers in the optical fiber transmission line of the signal channels in the first wavelength band.

On the page 8, please amend paragraph [0014] as follows:

[0014] In the optical transmission system according to the present invention, it is preferable that the total chromatic dispersion in the optical fiber transmission line and the dispersion compensator is ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less in all the signal channels in the second wavelength band. In this case, the amount of dispersion compensation in the second wavelength band can be decreased, and the increase of loss in the second wavelength band can be effectively suppressed. Therefore, higher quality signal light transmission becomes possible.

On the page 18, please amend paragraph [0044] as follows:

[0044] At this time, when the bit rate is  $B$  (Gb/s) at a specific wavelength in the second wavelength band  $\Lambda_2$  where the total chromatic dispersion becomes highest in the optical fiber transmission line 30 and the dispersion compensator 23, the chromatic dispersion value of this specific wavelength is set to be ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less.

On the page 18, please amend paragraph [0045] as follows:

[0045] Also in the entire system, the loss at each signal channel in the second wavelength band  $\Lambda_2$  is set to be lower than the highest loss among the losses of the signal channels in the first wavelength band  $\Lambda_1$ . Or the lowest received power among the received powers of the receiver for the signal light in the second wavelength band  $\Lambda_2$  is set to be higher than the lowest optical power among the optical powers of the signal channels in the first wavelength band  $\Lambda_1$  of the optical fiber transmission line 30. The total chromatic dispersion in the optical fiber transmission line 30 and the dispersion compensator 23 is preferably ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less in the signal channels in the second wavelength band  $\Lambda_2$ , respectively. “ $7500/B^2$ ” indicates the dispersion resistance of the system.

On the page 29, please amend paragraph [0065] as follows:

[0065] At this time, when the bit rate is  $B$  (Gb/s) at a specific wavelength in the second wavelength band  $\Lambda_2$  where the total chromatic dispersion becomes highest in the optical fiber transmission line 30 and the dispersion compensator 23, the chromatic dispersion value of this specific wavelength is set to be ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less.

On page 30, please amend paragraph [0066] as follows:

[0066] Also in the entire system, the loss at each signal channel in the second wavelength band  $\Lambda_2$  is set to be lower than the highest loss among losses of the signal channels in the first wavelength band  $\Lambda_1$ . Or the lowest received power among the received powers of the receiver for each signal channel in the second wavelength band  $\Lambda_2$  is set to be higher than the lowest optical power among the optical powers of the signal channels in the first wavelength band  $\Lambda_1$  of the optical fiber transmission line 30. It is preferable that the total chromatic dispersion in the optical fiber transmission line 30 and the dispersion compensator 23 is set to be ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less in each signal channel in the second wavelength band  $\Lambda_2$  respectively.

On page 37, please amend paragraph [0076] as follows:

[0076] At this time, when the bit rate is B (Gb/s) at a specific wavelength in the second wavelength band  $\Lambda_2$  where the total chromatic dispersion becomes highest in the optical fiber transmission line 30 and the dispersion compensator 23, the chromatic dispersion value with this specific wavelength is ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less.

On page 37, please amend paragraph [0077] as follows:

[0077] Also in the entire system, the loss at each signal channel in the second wavelength band  $\Lambda_2$  is set to be lower than the highest loss among losses of the signal channels in the first wavelength band  $\Lambda_1$ . Or the lowest received power among the received powers of the receiver for signal channels in the second wavelength band  $\Lambda_2$  is set to be higher than the lowest optical power among the optical powers of the signal channels in the first wavelength band  $\Lambda_1$  of the optical fiber transmission line 30. It is preferable that the total chromatic dispersion in the optical fiber

transmission line 30 and the dispersion compensator 23 is set to be ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less in each signal channel in the second wavelength band  $\Lambda_2$  respectively.

On page 42, please amend paragraph [0085] as follows:

[0085] At this time, when the bit rate is B (Gb/s) at a specific wavelength in the second wavelength band  $\Lambda_2$ , where the chromatic dispersion becomes highest in the optical fiber transmission line 30 and the dispersion compensating optical fiber 23, the chromatic dispersion value at this specific wavelength is set to be ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less.

On page 43, please amend paragraph [0086] as follows:

[0086] Also in the entire system, the loss at each signal channel in the second wavelength band  $\Lambda_2$  is set to be smaller than the highest loss among losses in the signal channels in the first wavelength band  $\Lambda_1$ . Or the lowest received power among the received powers of the receiver for the signal channels in the second wavelength band  $\Lambda_2$  is set to be higher than the lowest optical power among the optical powers in the signal channels in the first wavelength band  $\Lambda_1$  in the optical fiber transmission line 30. It is preferable that the chromatic dispersion in the optical fiber transmission line 30 and the dispersion compensating optical fiber 23 is ~~grater~~ greater than 0 (ps/nm) but  $7500/B^2$  (ps/nm) or less in each one of the signal channels in the second wavelength band  $\Lambda_2$  respectively.